

What Is Claimed Is:

1. A radar antenna array comprising:  
two different antennas for transmitting and receiving, the two antennas having antenna characteristics such that their dominant secondary lobes are mutually offset.
2. The radar antenna array according to claim 1, wherein the array is for automotive applications.
3. The radar antenna array according to claim 1, wherein the antenna characteristics of the two antennas are such that their dominant secondary lobes are mutually offset and their maximums and minimums are mutually suppressed.
4. The radar antenna array according to claim 1, further comprising an additional receiving antenna, having a different antenna characteristic, for evaluating a target situation by superimposing two receiving antenna characteristics, to detect a large target in a secondary lobe.
5. The radar antenna array according to claim 1, wherein the antennas include patch exciters.
6. The radar antenna array according to claim 1, further comprising beam forming networks for mutual suppression of the dominant secondary lobes.
7. The radar antenna array according to claim 1, further comprising antenna columns having individual patch exciters provided for the antennas.
8. The radar antenna array according to claim 1, further comprising a weighting device for amplitude compensation of secondary lobe signals to achieve a complete obliteration of dominant secondary lobes.

9. The radar antenna array according to claim 1, further comprising a receiving antenna having additional exciters for suppressing secondary lobes.
10. The radar antenna array according to claim 1, further comprising different phase controls of antenna exciters for transmitting and receiving.